CYNTECH

Petrochemical Sump and Pipe Support

Deer Park, Texas

Cyntech Group designed and fabricated high-capacity helical piles to support the sump load and pipe racks.

El proyecto

The client added a new sump area and needed to support the new concrete sump floor. Along with the new addition, the client also required deep foundation support of new pipe bridges and supports, and retrofitting existing supports (concrete bell piers) with new helical piles in the main corridor of the facility. The subsurface soils generally consisted of lean-to fat clays in loose to medium soils 20 to 30 ft deep.

El reto

Construction of the sump required earth retention to protect adjacent plant facilities. The system consisted of internally-braced sheet piles designed and installed by Keller. The elevation of the floor was located about 24 ft below existing grade, which was to be excavated. The concrete sump floor was to be poured prior to helical pile installation. Due to difficult access constraints, the installation method was limited to working from existing grade. The location of all new and retrofit pipe support locations were located along a busy corridor within the plant, limiting the helical pile section, drive motor, and excavator sizes.

La solución

A combination of helical piles and sheet piles allowed for construction of the sump. The project team worked with the general contractor and engineers to provide an alternate solution that met the original design load requirements.

Datos del proyecto

Propietario(s)
Confidential

Unidad(es) de negocio Keller
Cyntech Group
Keller

Contratista(s) principal(es)
Bayou City Industrial Contractors

Engineer(s)
Cyntech Group
Keller

Applications
Helical pile foundations

Markets
Industrial and manufacturing

Techniques
Helical piles

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